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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/804,368

03/18/2004

Yuuki Inoue

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08/23/2007

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EXAMINER

DICKER, DENNIS T

ART UNIT

PAPER NUMBER

2609

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/804,368

Applicant(s)

INOUE, YUUKI

Examiner

Dennis Dicker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/18/2004; 1/30/2007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-37,39-41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanamori in view of Rylander (WO 93/20648).

With respect to Claims 1 and 34, Kanamori teaches an **image processing method and apparatus [Abstract], comprising the steps of: a) producing a plurality of color profiles provided for performing color conversion on input image information within a same color space or through different color spaces [Column 9 Line 66 to Column 10 Line 6]; and b) selecting one of said plurality of color profiles whereby color in an image formed by one of said plurality of image forming apparatuses may be made effectively approximate color of an image formed by another of said plurality of image forming apparatuses [Column 10 Lines 37-51].**

Kanamori does not explicitly teach performing color conversion among a plurality of image forming apparatuses.

Rylander teaches **color conversion among a plurality of image forming apparatuses [Abstract and (56 and 66 of Figure 1)].**

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the method and apparatus taught by Kanamori with the teachings of color conversion among a plurality of apparatuses in order to improve color conversion between apparatuses.

With respect to claim 2 and 35, Kanamori teaches an **image processing method and apparatus for performing color conversion among a plurality of image forming apparatuses, comprising the steps of: a) producing a plurality of color profiles provided for performing color conversion on input image information within a same color space or through different color spaces; and b) selecting one of said plurality of color profiles whereby color in an image formed by one of said plurality of image forming apparatuses may be made effectively approximate color of an image formed by another of said plurality of image forming apparatuses [Abstract] and producing the color profile whereby color of an image formed by another of said plurality of image forming apparatuses may be made to effectively approximate the thus-measured color[91 of Figure 11].**

Kanamori does not explicitly teach an image processing method or apparatus, which comprises the step of actually measuring color an image formed by one of said plurality of image forming apparatuses.

Rylander teaches the **measuring color of an image formed by one of said plurality of image forming apparatuses [Column 1 Lines 22-25].**

Therefore it would have been obvious to one or ordinary skill in the art at the time of invention to include the measuring of color of an image formed by an image forming

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apparatus in order to match color profiles of image forming apparatuses more accurately.

With respect to Claim 3, Kanamori teaches an image processing method wherein: step b) comprises the steps of: b-1) inputting image data in an RGB color space; and b-2) selecting one of said plurality of color profiles provided for performing color conversion within the RGB color space *[Column 4 Lines 35-40]* whereby colors of images formed by first and second image forming apparatuses of said plurality of image forming apparatuses may be made to effectively approximate one another *[Figure 11 and Column 6 Lines 8-25]*.

With respect to Claim 4, Kanamori teaches an image processing method wherein: step b) comprises the steps of: b-1) inputting image data in an RGB color space *[Column 4 Lines 35-40]*; and b-2) selecting one of said plurality of color profiles provided for performing color conversion from the RGB color space through a CMYK color space *[Column 4 Lines 46-52 and Figure 11]* whereby colors of images formed by first and second image forming apparatuses of said plurality of image forming apparatuses may be made to effectively approximate one another *[Column 6 Lines 8-25]*.

With respect to Claim 5 and 9, Kanamori does not explicitly teach an image processing method wherein: plurality of color profiles are provided in a host computer which provides color information to the image forming apparatus for causing it to form a color image, and step b) is performed by said host computer or step a) of selecting one

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of said plurality of color profiles to be actually applied is performed externally of the relevant image forming apparatus.

Rylander teaches an **image processing method wherein: plurality [Figure 1] of color profiles (74) are provided in a host computer (52) which provides color information to the image forming apparatus for causing it to form a color image and step b) is performed by said host computer and step a) of selecting one of said plurality of color profiles to be actually applied is performed externally of the relevant image forming apparatus [Column 8 Lines 1-10].**

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include the steps taught by Rylander in Kanamori's image processing method in order in order to match color profiles more accurately and with improved precision.

With respect to Claim 6 and 10, Kanamori teaches an image processing method wherein: **a plurality of color profiles is provided in the image forming apparatus, and step b) is performed by an image forming apparatus and step a) of selecting one of said plurality of color profiles to be actually applied is performed from designation of the particular image forming apparatus which is actually applied [Abstract].**

With respect to Claim 7, 8, 36 and 37, Kanamori teaches an image processing method and apparatus wherein: color profiles selected in step b) comprise a color profile whereby a color difference in a predetermined color space, which does not depend on apparatus types [Column 17 Lines 60-64], between images

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formed by the image forming apparatuses, may be made to effectively approximate each other and wherein: a color space which does not depend on apparatus types comprises any one of an LAB color space, an XYZ color space and an LUV color space defined by CIE [Column 17 Lines 18-32].

With respect to Claim 11, Kanamori does not explicitly teach the steps in Claim 11.

Rylander teaches an **image processing method wherein: the color profile which effectively reduces a color difference between images in the predetermined color space which does not depend on apparatus types [Column 8 Lines 1-10]; is created by the following steps:**

c) Producing, in a computer, color patches from uniformly dividing a color space, which depends on an apparatus type of a first image forming apparatus [Column 3 Lines 23-24];

d) Obtaining corresponding color patches in an image formed from said first image forming apparatus according to color patch data produced in step c) [Column 10 Lines 4-11];

e) Measuring coordinate values of the color patches obtained in said step d) in the predetermined color space which does not depend on apparatus types [16 of Figure 2].

f) Obtaining a relationship, for each color patch, between the Color space which depends on the apparatus type of the first image forming apparatus and

the predetermined color space which does not depend on apparatus types, based on a measurement result in step e) [18 and 20 of Figure 2];

g) Obtaining a relationship between the predetermined color space which does not depend on apparatus types in an image formed by a second image forming apparatus and the predetermined color space which depends on an apparatus type of said second image forming apparatus [28 and 30 of Figure 2];
and

h) Calculating a coordinate value in the color space which depends on the apparatus type of said second image forming apparatus for each color path whereby color of an image formed by said second image forming apparatus should have a color difference which is effectively reduced from color of an image formed by said first image forming apparatus, according to the relationship between the predetermined color space which does not depend on apparatus types in an image formed by said second image forming apparatus and the color space which depends on the apparatus type of said second image forming apparatus, obtained in said step g) [28 and 30 of Figure 2 in Rylander and Column 17 Lines 5-32 of Kanamori];

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include the steps taught by Rylander in Kanamori's image processing method in order to approximate color difference more accurately when processing images between image processing apparatuses.

With respect to Claims 12-22, Kanamori teaches a **program comprising instructions causing a computer to execute the respective steps of the image processing method in Claims 2, 5, 9 and 11** [*Column 10 Lines 52-55*].

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention that the programmed digital microprocessor taught by Kanamori will consist a program comprising instructions causing a computer to execute the steps in Claims 1-11.

With respect to Claims 23-33, it would have been obvious to one of ordinary skill in the art at the time of invention that a program comprising instructions causing a computer to execute steps will be stored on a **computer readable information recording medium**, where all programs comprising instructions in order to be executed must be stored in some form of recordable medium.

With respect to Claim 39, Kanamori teaches an **image processing apparatus comprising a controller provided in one of the plurality of image forming apparatuses** [*Column 10 Lines 52-58*] which forms an image having color which is made to effectively approximate color of image formed by another of said plurality of image forming apparatuses with the use of the color profile [*Column 6 Lines 8-25*].

With respect to Claim 43, Kanamori teaches an **image forming apparatus which comprises an image forming part, which forms a visible image on a recording medium, based on image information output from said image processing apparatus** [*13 and 14 of Figure 1*].

3. Claim 38 and 42 and rejected under 35 U.S.C. 103(a) as being unpatentable over Kanamori in view Rylander and in further of Akira (JP 2001-358938).

With respect to Claim 38, Kanamori does not explicitly teach an image processing apparatus comprising a printer driver provided in a host computer which outputs printing information to the image forming apparatus for easier operation of the image processing apparatus.

Kanamori or Rylander in combination do not explicitly teach an image processing apparatus comprising a printer driver provided in a host computer which outputs printing information to the image forming apparatus.

Akira teaches an **image processing apparatus comprising a printer driver provided in a host computer which outputs printing information to the image forming apparatus** [Para 0012].

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention utilize a host computer to control and send print information to an image forming apparatus for overall control of an image forming apparatus from a remote location.

With respect to claim 42, Kanamori teaches a system controller [*Column 10 Lines 52-58*] which controls an image processing apparatus, which **selects a color profile to be applied from among the plurality of color profiles**.

Kanamori or Rylander in combination do not explicitly teach a host computer which provides printing information to the image forming apparatus.

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Akira teaches a **host computer which provides printing information to the image forming apparatus** [Para 0012].

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention that a printer driver installed in a host computer taught by Akira and the controller taught by Kanamori can do the same functions and therefore would both comprise a part selecting a color profile to be applied from the plurality of color profiles, where a host computer providing printing information to the image processing apparatus will speed up the image processing.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Dicker whose telephone number is (571) 270-3140. The examiner can normally be reached on Monday - Friday 7:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on (571) 272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alexander Eisen
SPE
Art Unit 2609

DD
8/17/2007